

In the specification

At page 5 please replace the paragraph which begins at line 9 and continues to page 6 line 2 with the following divided paragraphs between which the heading "**Summary of the invention**" is inserted:

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- - An intriguing feature of BRCA1, and unexpected in the light of Knudson's two-hit inactivation theorem for tumor suppressor genes, is that somatically acquired mutations are extremely rare in ovarian tumors [34-38] and have in fact not yet been detected in 135 breast tumors [39-40]. This might indicate that inactivation of BRCA1 is not selected for during tumorigenesis of the non-inherited form of breast cancer. BRCA1 expression might be critical only during certain stages of tissue development, e.g., during puberty when the breast undergoes its final differentiation into a potential milk-producing gland [39]. However, others have argued that the mechanism of inactivation might be different from that seen in inherited cases [41].

Summary of the invention

The present invention now reveals that the unusual high concentration of Alu-elements in the BRCA1 gene intronic regions [11] favors the induction of large genomic deletions and inversions in a situation of increased genomic instability although other mechanisms leading to these mutations may also play significant roles. The present invention thus provides a diagnostic test kit (and means and methods) for determining mutations, especially deletions of relatively large stretches of nucleotides in genes associated with

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hereditary types of cancer, in particular such mutations (deletions of relatively large stretches of nucleotides) in the BRCA1 gene. Such mutations are difficult, if not impossible, to detect by the current PCR-based approach (if their occurrence or the site thereof is unknown) using genomic DNA as template, which has been most widely applied to establish the current mutation spectrum of BRCA1. - -

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Please move the section entitled "**Brief description of the drawings**" which extends from page 14 onto page 15, to follow the section entitled "**Summary of the invention**" and to precede the section entitled "**Detailed description of the invention**" at page 8.

In the claims:

Please cancel claims 1-14 and add new claims 15-55 as follows:

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15. (New) A diagnostic test kit for detecting the presence of or predisposition for breast cancer, wherein a means is provided for detecting a deletion of a stretch of nucleotides from a BRCA1 gene in a sample, wherein said deletion comprises at least a major part of any one or all of exons 13, 14, 15 and 16, or at least a major part of exon 22.
16. (New) A diagnostic test kit according to claim 15, wherein the means comprises at least one probe for hybridization.